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EXAMINER

TRAN, PHILIP B

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD H. BOIVIE

Appeal 2008-1369
Application 09/696,566
Technology Center 2400

Decided:¹ March 12, 2009

Before JOHN C. MARTIN, JEAN R. HOMERE, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 CFR § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Data (electronic delivery).

STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM IN PART. We also enter new grounds of rejection for claims 6, 7, and 13-16 under the provisions of 37 C.F.R. § 41.50(b).

INVENTION

The invention on appeal is directed generally to electronic mail systems. More particularly, Appellant's invention is directed to an improved method and apparatus for distribution of electronic mail. (Spec. 1).

ILLUSTRATIVE CLAIM

Claim 1 further illustrates the invention as follows:

1. A method for distributing electronic mail efficiently across a network of information processing units and intermediate nodes, the method on an information processing unit comprising the steps of:
 - receiving a mail message that is created and sent by a user, the user associating the mail message with a plurality of individual destinations; and
 - sending a single copy of the mail message, in a multicast packet and using a reliable multicast technique, across the network via at least one intermediate node to the plurality of individual destinations, the plurality of individual destinations corresponding to a plurality of individual destination network addresses, wherein the multicast packet includes a packet header comprising the plurality of individual destination network addresses, wherein at least one of the plurality of individual

destination network addresses is a unicast address, and wherein the mail message is destined for reception at the individual destination corresponding to the unicast address as an ordinary unicast packet.

PRIOR ART

The Examiner relies upon the following references as evidence in support of the obviousness rejections:

Shur	US 6,259,701 B1	Jul. 10, 2001
Provino	US 6,269,085 B1	Jul. 31, 2001
Haggerty	US 6,331,983 B1	Dec. 18, 2001
Hardjono	US 6,643,773 B1	Nov. 4, 2003
Francis	US 5,331,637	Jul. 19, 1994

THE REJECTIONS

Claims 1, 3, 6, 8, 10, 13-15, and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, and Francis.

Claims 2, 4, 7, 9, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, Francis, and Shur.

Claims 5, 11, 16, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, Francis, and Provino.

Claims 8-20 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9-12, 15, 16, 19, and 20 of previously copending U.S. Patent Application No. 09/696,116 (now U.S. Patent 7,254,602) in view of Francis.

APPELLANT'S CONTENTIONS

With respect to all independent claims on appeal, Appellant argues *inter alia*, that the Examiner's proffered combination of Haggerty, Hardjono, and Francis does not teach or suggest the limitations of *the multicast packet includes a packet header comprising the plurality of individual destination network addresses, wherein at least one of the plurality of individual destination network addresses is a unicast address* (see independent claim 1 and equivalent limitations recited in each of independent claims 3, 6, 8, 13, and 17) (App. Br. 24, ¶3, *et seq.*).

Appellant does not address the Examiner's provisional obviousness-type double patenting rejection in the principal Brief. However, in the Reply Brief, Appellant offers to submit a terminal disclaimer in the event that U.S. patent application No. 09/696,116 is allowed. (Reply Br. 2, ¶3).

EXAMINER'S RESPONSE

In response, the Examiner maintains that the limitations argued by Appellant are taught and/or suggested by the combination of the Haggerty, Hardjono, and Francis references. (Ans. 30-33).

ISSUES

We consider the following issues that flow from the contentions of the Appellant and the Examiner:

1. Has Appellant shown that the Examiner erred in finding that the following limitations are taught or suggested by the cited combination of Haggerty, Hardjono, and Francis:

the multicast packet includes a packet header comprising the plurality of individual destination network addresses, wherein at least one of the plurality of individual destination network addresses is a unicast address?

(See independent claim 1 and equivalent limitations recited in each of remaining independent claims 3, 6, 8, 13, and 17).

2. Has Appellant shown that the Examiner erred in setting forth the provisional obviousness-type double patenting rejection of claims 8-20 as being unpatentable over claims 9-12, 15, 16, 19, and 20 of previously copending U.S. Patent Application No. 09/696,116 (now U.S. Patent 7,254,602) in view of Francis?

PRINCIPLES OF LAW

“What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103.” *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007).

FINDINGS OF FACT

In our analysis *infra*, we rely on the following findings of fact (FF) that are supported by a preponderance of the evidence:

THE PRIMARY HAGGERTY REFERENCE

1. Haggerty teaches that “[i]n multicast communications, one or more senders may transmit information to a group of receivers simultaneously. Each sending host sends a single copy of each packet to a group address.” (Col. 11, ll. 38-41).

2. Haggerty teaches that “[u]nicast applications send messages between one specific host address and another host address over the network.” (Col. 10, ll. 38-39).

THE SECONDARY HARDJONO REFERENCE

3. Hardjono teaches sending an e-mail message using multicasting where the e-mail message is transmitted to a plurality of users on a mailing list (col. 1, ll. 15-17).

THE TERTIARY FRANCIS REFERENCE

4. Francis teaches an improved multicast approach where only “[o]ne multicast tree is constructed for each multicast group no matter how many potential source nodes exist for the multicast group.” (Col. 5, ll. 36-39).
5. Francis teaches that “[a]ccording to one embodiment, one node called the core node is designated for each multicast group. A multicast tree for each multicast group is defined to initially contain only the corresponding core node as the root of the multicast tree. As nodes join the multicast group, branches are constructed from nodes on the tree to the nodes joining the multicast group. Each core node is assigned one unicast address for designating the core node as an ordinary destination of a packet. The core node is also assigned, from the same address space as the unicast addresses, one multicast address for each multicast group for which it is designated the core node. The multicast addresses are used by nodes not on the multicast

tree for routing packets the same way as unicast addresses.”
(Col. 5, ll. 40-54).

6. Francis teaches that “[e]ach node which receives the packet writes the address of the node from which the packet was received in an entry of a forwarding table, e.g., the unicast forwarding table, maintained at the receiving node.” (Col. 5, ll. 65 through col. 6, l.1).
7. Francis teaches that “[a]ny source node, whether or not the source node is part of the multicast group, can transmit a data packet to each node that is a member of a particular multicast group as follows. The source node writes the multicast address of the core node corresponding to the particular multicast group in the data packet. The source node then transmits the packet.” (Col. 6, ll. 25-31).
8. Francis teaches that “[i]f the packet transmitted by the source node is received at a node which is not part of the multicast tree, the receiving node simply treats the packet as an ordinary unicast packet.” (Col. 6, ll. 45-48).

THE SHUR REFERENCE

9. Shur teaches that “[i]n conventional packet, frame or cell based systems there are typically two modes of communication: point-to-point (also known as Unicast) and point-to-multipoint (also known as Multicast). Multicast addresses typically differ from Unicast addresses in that they refer to an intermediate abstraction known as a group. All senders address their

transmitted information to this group and all receivers are ‘tuned’ to ‘listen’ to that address to receive the information transmitted to that group by the senders. The senders of information are thus effectively de-coupled from the set of receivers. Senders do not need to know who the receivers are — they simply transmit packets addressed to the group. Similarly, receivers do not need to know who the senders are — they simply send a request to the network (routers) to join a specific group of interest.” (Col. 1, ll. 14-27).

ANALYSIS

ISSUE 1

We decide the question whether Appellant has shown that the Examiner erred by finding that the combination of Haggerty, Hardjono, and Francis teaches and/or suggests the following limitations:

the multicast packet includes a packet header comprising the plurality of individual destination network addresses, wherein at least one of the plurality of individual destination network addresses is a unicast address.

(see independent claim 1 and equivalent limitations recited in each of remaining independent claims 3, 6, 8, 13, and 17).

Based upon our review of the evidence before us, we find Appellant’s arguments persuasive that the combination of Haggerty, Hardjono, Francis does not fairly teach or suggest the aforementioned limitations. In particular, we agree with Appellant that the primary Haggerty reference merely teaches conventional multicast communications where one or more

senders may transmit information to a group of receivers simultaneously using a group address. (FF 1). Thus, we agree with Appellant (App. Br. 14, ¶2) that a conventional multicast packet contains a multicast group address in the packet header, and not a plurality of individual destination network addresses, as required by the equivalent language of each independent claim on appeal. We further agree with Appellant that in a multicast system the sender does not need to maintain a list of receivers (App. Br. 19). As established by the cited Shur reference, in a conventional multicast system, senders do not need to know who the receivers are, as they simply transmit packets addressed to the group (FF 9).

We note that the Examiner merely relies on the secondary Hardjono reference for its teaching of sending e-mail using multicasting (Ans. 10) (*see also* FF 3).

The tertiary Francis reference teaches that each core or root multicast node is assigned one unicast address for designating the core node as an ordinary destination of a packet (FF 5). Francis also teaches that the core node is also assigned, from the same address space as the unicast addresses, one multicast address for each multicast group for which it is designated the core node. (FF 5).

Francis further teaches that “[a]ny source node, whether or not the source node is part of the multicast group, can transmit a data packet to each node that is a member of a particular multicast group as follows. The source node writes the multicast address of the core node corresponding to the particular multicast group in the data packet. The source node then transmits the packet.” (FF 7). In this instance, we find Francis merely teaches the use of a single multicast group address. Francis also teaches that “[i]f the packet

transmitted by the source node is received at a node which is not part of the multicast tree, the receiving node simply treats the packet as an ordinary unicast packet.” (col. 6, ll. 45-48).

Thus, we find Francis teaches sending packets using both multicast and unicast methods. While Francis does teach a unicast forwarding table that is maintained at the receiving node (FF 6), we find Francis does not teach nor fairly suggest a *multicast packet that includes a packet header comprising a plurality of individual destination network addresses, wherein at least one of the plurality of individual destination network addresses is a unicast address*, as required by the equivalent language in each independent claim on appeal. We also find that the combination of Haggerty and Hardjono fails to fill the aforementioned gap in the teachings of Francis.

Because Appellant has shown the Examiner erred, we reverse the Examiner’s §103 rejection of independent claims 1, 3, 6, 8, 13, and 17, as being unpatentable over Haggerty, Hardjono, and Francis. Because we have reversed the Examiner’s rejection of each independent claim on appeal, we also reverse the Examiner’s associated § 103 rejections for each dependent claim on appeal. We address the Examiner’s provisional obviousness-type double patenting rejection separately, *infra*.

ISSUE 2

We decide the question whether Appellant has shown that the Examiner erred in setting forth the provisional obviousness-type double patenting rejection of claims 8-20 as being unpatentable over claims 9-12, 15, 16, 19, and 20 of previously copending U.S. Patent Application No. 09/696,116 (now U.S. Patent 7,254,602) in view of Francis.

Appellant has made an offer to submit a terminal disclaimer in the event that U.S. patent application No. 09/696,116 is allowed. (Reply Br. 2, ¶3). We note that U.S. patent application No. 09/696,116 issued as U.S. Patent No. 7,254,602 on Aug. 7, 2007. Because a conditional offer to file a terminal disclaimer cannot overcome a double patenting rejection, we *pro forma* sustain the Examiner's provisional obviousness-type double patenting rejection of claims 8-20.

CONCLUSION

Appellant has established that the Examiner erred in rejecting claims 1, 3, 6, 8, 10, 13-15, and 17-19 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, and Francis.

Appellant has established that the Examiner erred in rejecting claims 2, 4, 7, 9, and 12 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, Francis, and Shur.

Appellant has established that the Examiner erred in rejecting claims 5, 11, 16, and 20 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Haggerty, Hardjono, Francis, and Provino.

Appellant has not established that the Examiner erred in rejecting claims 8-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9-12, 15, 16, 19, and 20 of previously copending U.S. Patent Application No. 09/696,116 (now U.S. Patent 7,254,602) in view of Francis.

NEW GROUND OF REJECTION

We enter the following new grounds of rejection for claims 6, 7, and 13-16 under the provisions of 37 C.F.R. § 41.50(b):

Claims 6, 7, and 13-16

Claim 6, 7, and 13-16 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Each of these claims is directed to a computer readable medium. A computer-readable medium is directed to statutory subject matter so long as the language of claim does not read on any disclosed non-statutory embodiments (i.e., signals, transmission mediums and the like). *See In re Nuijten*, 500 F.3d at 1357 (Fed. Cir. 2007) (claim directed to a signal is not statutory under 35 U.S.C. § 101).

Here, Appellant's Specification expressly discloses that the scope of the claimed "computer-readable medium" is intended to broadly encompass "computer readable information in a transitory state medium such as a network link and/or a network interface, including a wired network or a wireless network that allow a computer to read such computer readable information." (Spec. 10, ll. 21-24).

Therefore, we conclude that the scope of claims 6, 7, and 13-16 broadly encompasses non-statutory subject matter, i.e., signals per se.

DECISION

We reverse the Examiner's decision rejecting claims 1-20 under 35 U.S.C. § 103 over the cited prior art.

We affirm the Examiner's decision provisionally rejecting claims 8-20 under the judicially created doctrine of obviousness-type double patenting.

With respect to the affirmed rejection(s), 37 C.F.R. § 41.52(a)(1) provides that “Appellant may file a single request for rehearing within two months from the date of the original decision of the Board.”

In addition to affirming the Examiner’s rejection(s) of one or more claims, this decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should Appellant elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If Appellant elects prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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